UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

HSE-5J

MEMORANDUM

DATE:

SUBJECT: ACTION MEMORANDUM - Request for an Emergency Removal Action at the American Plating Site (aka JWP Anodizing), Chicago, Cook County, Illinois.

FROM: Sam Borries, On-Scene Coordinator
Emergency Response Section II

THRU: Richard Karl, Chief
Emergency and Enforcement Response Branch

TO: William Muno, Acting Associate Division Director
Office of Superfund

Site ID# VF

I. PURPOSE

The purpose of this memorandum is to request and document approval to expend up to $323,000 to abate an imminent and substantial threat to public health and the environment which exists at the American Plating (aka JWP Anodizing) site, hence forth referred to as the AP site, 1820 West Lake Street, Cook County, Chicago, Illinois.

The site is a former electroplating facility which is suspected to have used chromium plating processes. The removal action seeks to abate the imminent and substantial threat to human health and the environment stemming from cyanide, heavy metal bearing materials, and caustic and corrosive wastes present at the site in drums and open tanks. The proposed removal action seeks to alleviate this threat by removing and disposing of these waste streams. It is estimated that the removal action will require 30 on-site working days to complete. The proposed removal action at the site is considered a time critical removal action due to the direct contact threat to the public from plating wastes within the site.

The site is not included on the National Priorities List (NPL).

II. SITE CONDITIONS AND BACKGROUND

CERCLIS ID # IL000117642

Site Description and Background

The American Plating site is an inactive electroplating facility located at 1820 West Lake Street in Chicago, Cook County, Illinois. The area around the site is primarily residential. An alley and Department of Public Works yard exist north of the site, small businesses exist east of the site, Henry Horner housing projects are across Lake Street to the south, an open lot occupies the area to the west. Most of the facilities apparatus have been removed or salvaged. Remaining items consist of approximately 12-15 large vats, approximately 30 drums and debris/floor sweepings. The site building is a single story structure approximately 130x200 feet which is severely deteriorated and has partially collapsed and burned on the north central and southeastern sections of the building.

Site records provided by the Chicago Department of Environment (CDOE) reveal numerous violations from the Metropolitan Water Reclamation District (MWRD). Non-compliance in correcting violation notices resulted in MWRD Cease and Desist Orders for not properly reporting a malfunction and spill, failure to submit a baseline monitoring report, and for discharging effluent with an elevated pH to the sanitary sewer. CDOE file information does not indicate when this facility began or ceased operations. The file does indicate the facility was operating as recently as 1993 and was at this location for over 10 years.

A joint inspection was conducted on August 8, 1995 by U.S. EPA On-Scene Coordinator Charlie Gebien, three CDOE emergency response personnel, and a City of Chicago building inspector. The cursory walk through revealed one vat filled with a liquid in the 1-2 pH range, numerous drums, possible asbestos, and discoloration of the ground and building walls. It was noted that the building was open in numerous locations and in CDOE's assessment it would not be worthwhile to try and board up the building.

U.S. EPA received a letter dated August 9, 1995 from City of Chicago Assistant Commissioner David R. Inman to Mr. Don Bruce, U.S. EPA Emergency Response and Enforcement Branch requesting high priority for an emergency response action to begin immediate removal and clean-up of this facility.

C. Current Site Conditions

On August 30, 1995, U.S. EPA On-Scene Coordinator (OSC) Sam Borries, Chicago Department of Environment (CDOE) personnel Lafayette Robertson, Senior Environmental Inspector, and Joseph Schuessler, Director of Toxic Pollution Control, and City of Chicago Building Inspector Michael D. Hoskins met at the site to perform a removal assessment. The site assessment team members observed various drums containing acids and chromium crystals. Approximately 30 drums are located on-site. Some of these drums have spilled their contents onto the floor of the building. Additionally, an estimated 12-15 open vats, all of which contained some type of material, exist on-site. Approximately half of the vats are located in the north central section of the building which has collapsed on and into the vats, filling them with building debris. The exact number of vats buried under the building is unknown. Certain assumptions have been made on the contents and conditions of these vats, however, until they are uncovered and examined specific questions cannot be answered. The floors of the building were visibly stained. One filled vat approximately 4x6x25 feet contains acidic material with a pH of 1.58.

Air monitoring was conducted during the site assessment with a microtip photoionization detector (PID). No readings above background were detected. This is most likely the result of a strong breeze during the assessment and because all the doors and windows were broken out and open. Additionally, most of the sky lights and various sections of the walls and roof are missing or collapsed into the building.

Analytical results of grab and composite samples collected from the American Plating site that exceeded the RCRA characteristics for hazardous waste include the following examples:

Sample D-2

Toxicity characteristic leaching procedure (TCLP) concentrations for chromium were reported at 608 milligrams per liter (mg/L), exceeding the limit for characteristic hazardous waste (D007 5.0mg/L)

Sample D-3

Sample D-3 was collected from a 55 gallon drum labeled sulfuric acid. Approximately 20 partially filled or empty drums were located near this drum, most of which were labeled sulfuric acid. These drums were discovered next to an open sewer manhole inside the building. Sample D-3 has a ph of 0.48, exceeding the limit for a characteristic of corrosivity for hazardous waste (D002 <2.0 pH range).

Sample Pit -1

Sample Pit-1 was collected from exposed underlying soil of an apparently abandoned plating line. Toxicity characteristic leaching procedure (TCLP) concentrations for lead from Pit-1 were reported at 5.20 mg/L, exceeding the limit for characteristic hazardous waste for lead (D008 5.0mg/L). A sample collected from Pit-2 and a separate plating line had a TCLP lead concentration of 4.76 mg/L.

Sample Vat #5

This sample was collected from a filled vat with dimensions of approximately 4x6x25 feet. Sample results indicate this clear brown liquid has a pH of 1.58, exceeding the limit for a characteristic of corrosivity for hazardous waste (D002 <2.0 pH range). Chromium content of this sample is 12.9 mg/L.

Small amounts of amenable and/or total cyanide were detected in 3 of the 7 samples collected. Concentrations ranged from 0.40 ug/g to 1.9 ug/g.

D. State and Local Authorities Role

As described above, the CDOE requested U.S. EPA assistance in conducting removal activities at the site to mitigate any potential threats posed to nearby residents from plating wastes stored at the abandoned facility. The City of Chicago Fire Department (CFD) has apparently responded to the facility at some time in the past, as is evident from the partially burned structure and partially melted poly drums spilling their contents. A City of Chicago building inspector attended the site inspection on August 8, 1995 and determined the City will possibly decide to demolish the building after the environmental concerns are addressed. On August 9, 1995 Mr. David Inman, Assistant Commissioner, CDOE requested that U.S. EPA initiate immediate actions at the site to mitigate immediate threats to local residents from materials remaining on-site. The City of Chicago and the IEPA do not have sufficient funds to conduct the removal action.

III. THREAT TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES

Conditions present at the AP site constitute an imminent and substantial threat to public health and welfare and the environment, based upon considerations as set forth in the National Oil and Hazardous Substances Pollution Contingency Plan

(NCP), 40 CFR Section 300.415 (b) (2). Accordingly, a time-critical removal action is the appropriate response action at the AP site. These conditions include, but are not limited to, the following:

i) Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants;

Access to the site is unrestricted to entry by vagrants and vandals as evidenced by the presence of beer bottles and food containers scattered on the floor. One room of the office area is apparently being used as a living space as evident by the clothing and bedding articles. Cyanide, as found in a few of the samples may be inhaled or ingested resulting in limited exposure. Symptoms of severe exposure include asphyxia, death, damage to the cardiovascular system, liver, skin, kidneys and central nervous system. Chromic acid is corrosive on contact or inhalation, and may cause severe irritation of the respiratory system. Chronic symptoms of exposure include skin ulcers and conjunctivitis. Liquid sulfuric acid will burn the skin and eyes and is harmful if swallowed. Sulfuric acid in a mist is irritating to the eyes, nose and throat. If inhaled it may cause coughing, difficult breathing, or loss of consciousness.

ii) Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers, that may pose a threat of release;

Samples collected by the U.S. EPA indicate that hazardous materials are present on site. Many of the 55 gallon drums and plating/immersion/pH adjustment vats found on site are open and contain hazardous material. Several drums are overturned or melted from a site fire releasing contents to the floor, and many are in poor condition, resulting in a continued threat of release.

iii) Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released;

All utility services at the site have been terminated. Freezing temperatures during the upcoming winter months may cause rupture of tanks, piping, and containers. The resulting release and mixture of incompatible materials may result in minor amounts of cyanide gas. Additional spillage to the floor may result in migration of hazardous material into an open sewer present inside the facility around one of the drum storage areas.

iv) Other situations or factors that may pose threats to the public health or welfare;

The site facility is linked directly to a municipal sewer system. High levels of hazardous substances such as acid, chromium, and lead could be released into the sewer system if a failure in any of the containment systems at the site were to occur, or if unauthorized persons were to deliberately dispose of these hazardous substances into the sewer. The site has been abandoned for up to two years and there is no guard present to prevent illegal entry and tampering with the stored wastes. Scavengers appear to have already removed most of the facility's office equipment, electrical system, and anything of scrap value which could be carried away. The scavengers have broken a water supply valve within the facility allowing water to wash floor sweepings and any spilled material from around the sulfuric acid drums into the open sewer.

IV. ENDANGERMENT DETERMINATION

Open vats and improperly stored drums and other hazardous substances (D002, D007 & D008 hazardous wastes) at the American Plating site contain acids, chromium, lead, and cyanide. These wastes pose potential inhalation, ingestion, and contact hazards to surrounding residents in this mixed residential/commercial area.

Given the present site conditions, the nature of hazardous substances on-site, and the potential exposure pathways described in section III above, actual or threatened releases of hazardous substances from this site, if not addressed by implementing the response action selected in this Action Memorandum, may present an imminent and substantial endangerment to public health, or welfare, or the environment.

V. PROPOSED ACTIONS AND ESTIMATED COSTS

A. Proposed Actions

1. Proposed Action Description

The purpose of this removal action is to mitigate the imminent and substantial threats posed to public health or welfare or the environment from plating wastes at the site. The proposed immediate response action includes the following actions:

1) A site safety plan will be prepared and implemented. The site will be secured to the extent practicable for completion of site activities.

2) The contents of vats, drums, and any other containers will be segregated, staged, sampled, and categorized for disposal. Compatible waste streams will be bulked and disposed of off-site.

3) All vats will be decontaminated, demolished and/or disposed of as necessary to prevent future placement of waste material in these containers. Underlying soils beneath the vats will be addressed as necessary (e.g. sampling, consolidation, and disposal).

4) Floors and walls will be sampled to determine the need for decontamination. If the floors and walls are contaminated they will be decontaminated so the City can continue with plans to demolish the building. Any building debris determined to be hazardous will be disposed of properly.

Waste transportation and disposal will be handled in full compliance with the Agency's off-site policy. Provisions for post-removal site control are not anticipated, as all wastes will be removed from the site and remaining structures will be decontaminated, as needed, to remove hazardous substances.

The response actions described in this memorandum directly address actual or threatened releases of hazardous substances, pollutants, or contaminants at the facility which may pose an imminent and substantial endangerment to public health and safety, and to the environment. These response actions do not impose a burden on affected property disproportionate to the extent to which that property contributes to the conditions being addressed.

2. Contribution to Remedial Performance

The AP site is a non-NPL site for which remedial actions have not been planned to date. The proposed removal action will address all threats meeting the NCP Section 300.415 (b) (2) removal criteria as identified in Section III of this Action Memo.

3. Applicable or Relevant and Appropriate Requirements (ARARs)

All Federal ARARs and any Illinois ARARs identified in a timely manner will be compiled with to the extent practicable. A letter has been sent to Tom Crause of IEPA requesting that it identify state ARARs.

5. Project Schedule

It is estimated that the removal will be completed in 35 ten hour working days.

B. Estimated Costs

The estimated costs of the recommended action are summarized below. These cost figures were prepared assuming a local ERCS contractor would be used to save on travel, per diem, and lodging costs. Additionally, it is assumed extra precautions will be necessary for security and safety of cleanup personnel working in and around the location of this site. The detailed Emergency Response Cleanup Services (ERCS) contractor costs and initial cost projection scenario are presented in Attachment A. The estimated costs are as follows:

EXTRAMURAL COSTS	
Cleanup Contractor Costs	$ 199,000.
Contingency (10%)	$ 20,000.
Subtotal	$ 219,000.
Total TAT (includes multiplier costs)	$ 47,000
Extramural Subtotal	$ 266,000.
Extramural Contingency (10%)	$ 26,000.
TOTAL, EXTRAMURAL COSTS	$ 292,000.
INTRAMURAL COSTS	
U.S. EPA Direct Costs [$30. x (350 Regional hrs. + 35 HQ hrs.)]	$ 12,000.
U.S. EPA Indirect Costs [$53 x 350 Regional hrs.)	$ 19,000.
TOTAL, INTRAMURAL COSTS	$ 31,000.
TOTAL REMOVAL PROJECT CEILING	$ 323,000.

VI. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN

Without undertaking the aforementioned action, freezing temperatures during the upcoming winter months or vandalism may cause rupture of tanks, piping, and containers within the plating building. The resulting release and mixture of incompatible materials may result in the generation of cyanide gas.

Additional spillage to the facility's plating area could result in an overflow of hazardous wastes to the sanitary sewer, street or neighboring properties. A release of cyanide gas to the air or a release of plating wastes to surrounding properties will contribute and ultimately lead to increased risks to public health and the environment.

VII. OUTSTANDING POLICY ISSUES

There are no outstanding policy issues for the American Plating site.

VIII. ENFORCEMENT

For administrative purposes, information concerning the enforcement strategy for this site is contained in an Enforcement Confidential Addendum (see Attachment B).

IX. RECOMMENDATION

This decision document represents the selected removal action for the AP site, Chicago, Cook County, Illinois, developed in accordance with CERCLA as amended, and is not inconsistent with the NCP. This decision is based on the Administrative Record for the site (see Attachment C). Conditions at the site meet the NCP section 300.415 (b)(2) criteria for a removal action and I recommend your approval of the proposed removal action. The total project ceiling, if approved, will be $ 323,000. Of this, an estimated $ 245,000 may be used for cleanup contractor costs. You may indicate your decision by signing below:

APPROVE: _____ DATE: 9/26/95
Acting Associate Division Director
Office of Superfund

DISAPPROVE: _____ DATE: _____
Acting Associate Division Director
Office of Superfund

ATTACHMENTS:
A. ERCS CONTRACTOR COSTS
B. ENFORCEMENT CONFIDENTIAL INFORMATION
C. ADMINISTRATIVE RECORD

cc: T. JOHNSON, OS-210
SHEILA HUFF, U.S. Department of the Interior
230 South Dearborn Street, Room 3422
Chicago, Illinois 60604
T. CRAUSE, Illinois EPA, CERCLA COORDINATOR

bcc: S. VEGA, HSE-5J
R. KARL, HSE-5J
B. MESSENGER, HSE-5J
D. BRUCE, HSE-5J
O. WARNSLEY, HSRLT-5J
T. LESSER, P-19J
L. FABINSKI, ATSDR, HSRL-5J
D. CRUME, MF-10J
EERB Read File (P. Coleman)
EERB Delivery Order File (M. Gustafson)
EERB Site File (SF Central File Room)
R. DUMELLE, Contracting Officer, MC10-J
S. BORRIES, OSC, HSE-5J
R. CLARIZIO, ORC, CS-29A
A. LILLY, Enforcement Specialist, HSE-5J

ATTACHMENT A

ERCS CONTRACTOR COSTS

Redacted - not relevant to the selection of the removal action.

ATTACHMENT B

ENFORCEMENT ADDENDUM

Redacted - not relevant to the selection of the removal action.